In the claims:

1-61. (Canceled)

62. (New) An infra-red imaging camera comprising:

an uncooled and unshielded detector arranged to detect infra red radiated energy, and

a calibrator to carry out periodic calibration operations by taking at least one calibration temperature measurement over said camera and to derive from said at least one calibration temperature measurement a reference temperature indicative of radiated energy not from an external scene, said reference temperature being usable to correct energy detected at said uncooled sensor to discount radiated energy not from an external scene, such that the reference temperature and the detector response to radiated energy impinging on said detector allow a temperature of objects in said camera's field of view to be calculated.

63. (New) The infra-red imaging camera of claim 62, configured to combine a value from an initial calibration temperature measurement with a second value taken from a second calibration temperature measurement, said combining using a time-dependent function, to produce extrapolations of said corrections for later points in time after said calibration temperature measurements.

64. (New) The infra-red imaging camera of claim 63, wherein said time-dependent function comprises a mathematical extrapolation function from most recent calibration temperature measurements.

65. (New) The infra-red imaging camera of claim 62, configured to make said correction using an initial value which is a function of a temperature measurement of a shutter of said camera.

66. (New) The infra-red imaging camera of claim 62, configured to make said correction using an initial value which is a function of a temperature measurement of a housing of said camera.

67. (New) The infra-red imaging camera of claim 62, having a camera thermal time constant of a first duration, and wherein said calibrator is configured to make a plurality of said calibration temperature measurements during said first duration.

68. (New) The infra-red imaging camera of claim 62, wherein a first thermistor is located on a shutter of said camera, a second thermistor is located on an external surface of detector's vacuum packaging of said camera and a third thermistor is located on a casing surrounding optics of said camera, and wherein said calibration temperature measurement comprises taking readings from each of said thermistors.

69. (New) The infra-red imaging camera of claim 65, wherein said shutter comprises a sheet having an emissivity substantially approaching 1 within a spectral frequency range used by said detector, and wherein said uncooled detector is configured to make said calibration temperature measurement by measuring radiation from said shutter.

70 (New) The infra-red imaging camera of claim 65, wherein said shutter comprises a sheet having a reflectivity substantially approaching 1 within a spectral frequency range used by said detector, and wherein said uncooled detector is configured to make said calibration temperature measurement by measuring radiation reflected from said shutter, said radiation being indicative of a temperature of said uncooled detector.

71. (New) The infra-red imaging camera of claim 62, wherein said uncooled detector comprises a microbolometer array.

72. (New) The infra-red detector of claim 62, operable to make said calibration temperature measurement at an interval of time less than the camera thermal time constant.

73. (New) The infra-red imaging camera of claim 62, configured to use a same signal to temperature function for all pixels of said array.

74. (New) Temperature correction apparatus, for correcting a response of a radiometer in accordance with a local camera temperature, said radiometer comprising:

an unshielded uncooled infra-red (IR) sensor, for providing an image response in order to form a temperature image in accordance with IR radiation impinging on said IR sensor's field of view (FOV), and

a shutter, for controllably obscuring said FOV, an internal face of said shutter forming a measurement surface for an internal temperature reference unit;

said temperature correction apparatus comprising:

a temperature sensor for determining a local camera temperature using said measurement surface,

a referencer, for deriving from said local camera temperature a reference temperature indicative of radiated energy not from an external scene and for using a response of said IR sensor to said local camera temperature to approximate a temporal effect of temperature drift of said local temperature; and

a signal corrector associated with said temperature sensor and said referencer, said signal corrector being configured to discount impinging IR radiation not from an external source by calculating a temperature of objects in said radiometer's field of view in accordance with said approximated temporal effect, the detector level, and said reference temperature.

75. (New) Temperature correction apparatus according to claim 74, wherein said reference temperature and said response of said IR sensor to said local camera temperature are determined during the obscuration of said FOV by said shutter.

76. (New) Temperature correction apparatus according to claim 74, wherein said approximation is a mathematical functional approximation based on previous measured data.

77. (New) Temperature correction apparatus according to claim 74, wherein said IR sensor array is operable to provide a two-dimensional image.

78. (New) Temperature correction apparatus according to claim 74, wherein said IR sensor comprises an array of microbolometers, and wherein said signal corrector is operable to calculate a difference between a microbolometer level and a reference level comprising an average video signal of said IR sensor, and to use said difference to produce said correction.

79. (New) A method for correcting a response of a radiometer in accordance with a local temperature, said radiometer comprising an infra-red (IR) sensor, for providing an image response in order to form a temperature image in accordance with IR radiation impinging on said IR sensor's field of view (FOV), and a shutter, for controllably obscuring said FOV, said method comprising:

determining, while said FOV is obscured by said shutter, a local camera temperature of a location selected in accordance with an emissivity of said shutter;

deriving from said local camera temperature a reference temperature reflecting impinging IR radiation not from an external source; and

calculating a temperature of objects in said radiometer's field of view in accordance with said reference temperature.

80. (New) A method according to claim 79, further comprising determining a time dependent response of said radiation sensor to said local camera temperature; and

using said reference response in modifying said correction in between determinations of said reference temperature.

81. (New) A method for correcting a response of a radiometer according to claim 79, further comprising filtering said corrected image response to compensate camera MTF effects.

82. (New) A method of upgrading an infra-red imaging camera for making temperature measurements, the existing infra-red camera comprising:

focusing optics for gathering infra-red energy from an external scene,

an uncooled detector unshielded from internal parts of said camera and arranged to detect infra red radiated energy, and

a shutter, controllably mounted to periodically interpose itself between said focusing optics and said uncooled sensor array to allow said detector to carry out periodic uniformity correction operations from temperature measurements over said shutter surface,

the upgrade comprising applying at least one temperature sensor within said camera for allowing a localized temperature measurement to be taken at periodic intervals for use in deriving a reference temperature indicative of radiated energy not from an external scene, for the calculation of a temperature of objects in said camera's field of view.

83. (New) The method of claim 82, wherein said applying said at least one temperature sensor comprises configuring said at least one sensor to measure said local temperature when said shutter interposes between said focusing optics and said sensor.